

Claim Amendments

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims

Claim 1. (Currently Amended) A polymer composition consisting essentially of:
a mixture comprising of the following components:

- a) a low-molecular-weight (meth)acrylate (co)polymer having with a solution viscosity in chloroform at 25° C (ISO 1628 – Part 6) ~~smaller than or equal of~~ 45 to 55 ml/g,
- b) an impact modifier based on crosslinked poly(meth)acrylates,
- c) a relatively high-molecular-weight (meth)acrylate (co)polymer[[,]] having with a solution viscosity in chloroform at 25° C (ISO 1628 – Part 6) greater than or equal to 65 ml/g, and/or
- d) a (meth)acrylate (co)polymer other than a) having with a solution viscosity in chloroform at 25° C (ISO 1628 – Part 6) of ~~from~~ 50 to 55 ml/g,

where each of the individual components a), b), c) and/or d) may be individual polymers or ~~else~~ a mixture of polymers, where the entirety of a), b), c) and/or d) is 100 % by weight of the polymer mixture[[,]]; and

~~where the polymer mixture may also comprise conventional additives, auxiliaries and/or fillers, and~~

where a test specimen produced from the polymer mixture simultaneously has the following properties:

- I. a tensile modulus (ISO 527) of at least 2600 MPa,
- II. a Vicat softening point VSP (ISO 306 B50) of at least 109° C,
- III. an impact strength (ISO 179 2D, flatwise) of at least 17 kJ/m², and

IV. a melt index MVR (ISO 1133, 230°C/3.8 kg) of at least 1.5 cm³/10 min.

Claim 2. (Currently Amended) The polymer ~~mixture~~ composition according to Claim 1, wherein the components are present in the following quantitative proportions, their entirety being 100 % by weight:

- a) from 25 to 75 % by weight
- b) from 10 to 60 % by weight
- c) and/or d) from 10 to 50 % by weight.

Claim 3. (Currently Amended) The polymer ~~mixture~~ composition according to Claim 1, wherein component a) is a copolymer of methyl methacrylate, styrene and maleic anhydride.

Claim 4. (Currently Amended) The polymer ~~mixture~~ composition according to Claim 3, wherein component a) is a copolymer of:

- from 50 to 90 % by weight of methyl methacrylate,
- from 10 to 20 % by weight of styrene, and
- from 5 to 15 % by weight of maleic anhydride.

Claim 5. (Currently Amended) The polymer ~~mixture~~ composition according to Claim 1, wherein component b) has a two or three-shell structure.

Claim 6. (Currently Amended) The polymer ~~mixture~~ composition according to Claim 1, wherein component c) is a copolymer of methyl methacrylate, styrene and maleic anhydride.

Claim 7. (Currently Amended) The polymer ~~mixture~~ composition according to Claim 6, wherein component c) is a copolymer of:

from 50 to 90 % by weight of methyl methacrylate,

from 10 to 20 % by weight of styrene, and

from 5 to 15 % by weight of maleic anhydride.

Claim 8. (Currently Amended) The polymer ~~mixture~~ composition according to Claim 1, wherein component d) is a homopolymer or copolymer of at least 80 % by weight of methyl methacrylate and, optionally, up to 20 % by weight of other monomers copolymerizable with methyl methacrylate.

Claim 9. (Currently Amended) The polymer ~~mixture~~ composition according to Claim 8, wherein component d) is a copolymer of from 95 to 99.5 % by weight of methyl methacrylate and from 0.5 to 5 % by weight of methyl acrylate.

Claim 10. (Currently Amended) The polymer ~~mixture~~ composition according to Claim 1, wherein a lubricant is present as an auxiliary.

Claim 11. (Currently Amended) The polymer ~~mixture~~ composition according to Claim 10, wherein stearyl alcohol is present as a mould-release agent.

Claim 12. (Currently Amended) An object prepared by injection moulding[[,]]
~~comprising a~~ the polymer ~~mixture~~ composition according to Claim 1.

Claim 13. (Currently Amended) A method for producing a molded object, comprising:
~~an injection moulding the polymer composition of Claim 1 into the shape of an object~~
which has the following properties:

- I. a tensile modulus (ISO 527) of at least 2600 MPa,
- II. a Vicat softening point VSP (ISO 306 B50) of at least 109°C,
- III. an impact strength (ISO 179 2D, flatwise) of at least 17 kJ/m², and
- IV. a melt index MVR (ISO 1133, 230°C/3.8 kg) of at least 1.5 cm³/10 min

~~comprising utilizing the polymer mixture according to Claim 1 to produce the injection moulding.~~

Claim 14. (Canceled)

Claim 15. (New) A molded part of a household device, a communication device, or a sport of a hobby device or a bodywork component employed in the construction of automobiles, ships or aircraft, comprising:

a shaped object prepared by injection molding of the polymer composition according to Claim 1.

Claim 16. (New) A polymer composition consisting essentially of:

a mixture of the following components:

a) from 25 to 75 % by weight of a low-molecular-weight (meth)acrylate (co)polymer having a solution viscosity in chloroform at 25° C (ISO 1628 – Part 6) of 45 to 55 ml/g,

b) from 10 to 60 % by weight of an impact modifier based on crosslinked poly(meth)acrylates,

c) from 10 to 50 % by weight of a relatively high-molecular-weight (meth)acrylate (co)polymer having a solution viscosity in chloroform at 25° C (ISO 1628 – Part 6) greater than or equal to 65 ml/g, and/or

d) from 10 to 50 % by weight of a (meth)acrylate (co)polymer other than a) having a solution viscosity in chloroform at 25° C (ISO 1628 – Part 6) of 50 to 55 ml/g,

where each of the individual components a), b), c) and/or d) may be individual polymers or a mixture of polymers, where the entirety of a), b), c) and/or d) is 100 % by weight of the polymer mixture; and

at least one conventional additive, auxiliary and/or filler, and

where a test specimen produced from the polymer mixture simultaneously has the following properties:

- I. a tensile modulus (ISO 527) of at least 2600 MPa,
- II. a Vicat softening point VSP (ISO 306 B50) of at least 109° C,
- III. an impact strength (ISO 179 2D, flatwise) of at least 17 kJ/m², and
- IV. a melt index MVR (ISO 1133, 230°C/3.8 kg) of at least 1.5 cm³/10 min.